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The watchman's walk problem on graph products

A watchman's walk in a graph G is a minimum closed dominating walk. The watchman number of a graph G is the length of a watchman's walk and is denoted by $w(G)$. First we introduce several lower bounds on $w(G)$ and apply them to determine $w(G)$ in some graph products. Pittman extended the definition of a watchman's walk to directed graphs in her M.Sc. thesis. In a natural way, both the walk and the domination in a digraph occurs in the direction of the arcs. We will finish this talk with some current work on the watchman's walk involving products of digraphs. This is joint work with Danny Dyer and Brittany Pittman.